

STATEMENT OF ALLEN R. BARBER, PRESIDENT, SECURITY & DETECTION SYSTEMS, L-3 COMMUNICATIONS, INC., BEFORE THE HOUSE COMMITTEE ON HOMELAND SECURITY, SUBCOMMITTEE ON ECONOMIC SECURITY, INFRASTRUCTURE PROTECTION, AND CYBERSECURITY, REGARDING LEVERAGING TECHNOLOGY TO IMPROVE AVIATION SECURITY. JULY 13, 2005.

Mr. Chairman and Members of the Subcommittee:

I am Allen Barber, President of L-3 Communications' Security & Detection Systems Division. I am pleased to have the opportunity to appear before you today on the subject of leveraging technology to improve aviation security. We have been extensively involved in this field since the mid-1990's and, following the 1998 initial certification of our eXaminer Explosive Detection System (EDS), we have delivered more than 550 systems to TSA for installation at our nation's airports. Thirteen other countries, including Japan, Mexico and Korea, have also acquired our in-line EDS to assist them in their efforts to bolster aviation security.

The tragic events of last week in London underscore both the continued threats we face from terrorism and the need to redouble our collective efforts to protect our citizens from such violent acts. Transportation security, including rail, is a daunting task operationally because of its distributed nature. However, I think it is fair to say that screening for rail threats may not prove to be as difficult a technical challenge as it was in the aviation environment. In fact, last year's TSA TRIP program demonstrated that screening for rail threats in a terminal and on a rail car can be done effectively with existing high-throughput automatic detection technology and at very low false alarm rates. Addressing rail security is an operational question: where do you focus resources for fielding security systems? We believe that focus should be where the greatest economic and human impact would be – at the large hubs and the links to those hubs. TSA could field equipment and study concepts of operations at several key sites to determine the maximum benefits so passenger and baggage flows can be optimized while maximizing security and throughput. The investment made in aviation security technologies has thus created a pool of relevant technologies that can now be applied to other transportation modes. We do not need to re-invent the technology in order to address multi-mode transportation security.

Aviation security continues to pose the greatest risk and cost. The use of explosive trace detection (ETD) systems for checked baggage screening at many U.S. airports continues at high labor cost & marginal security. Meanwhile, substantial improvements to in-line EDS have occurred over the last year. Baggage throughputs are up substantially at new in-line installations. Boston Logan's new Terminal A has achieved well in excess of 600 bags per hour at peak periods this summer. We encourage the Committee to visit the nation's first large in-line system at Boston's Logan airport to understand the challenges they face and the tremendous successes they've achieved.

In-line EDS is universally recognized as the most secure and cost-effective solution for checked baggage screening. Simply stated, lobbies were designed for the movement of people and, consequently, lobby installations of EDS do not realize the labor savings, particularly with the

handling and resolution of alarms. We also have gained experience and knowledge from installing over 170 in-line systems in a variety of baggage handling systems. This now enables us to recommend simple and scaled down in-line solutions for less busy airports (i.e., Cat 2 and Cat 3 airports), which makes in-line EDS for these airports the cheaper, faster, and better approach as well.

The funding and installation of in-line EDS, in my view, remains the highest EDS priority and will provide the greatest return on investment. We urge the Committee to press for the necessary funding and a concrete plan to accelerate these installations. In-line EDS will not only provide improved security for the traveling public, but will recoup the total financial investment in a very brief period because of the tremendous labor savings to be achieved.

Technology improvements for checked baggage screening will also improve labor efficiency, but not to the same extent as in-line EDS. For example, networking and On-Screen-Resolution (OSR) of alarms has improved performance significantly. There are almost 100 L-3 eXaminers networked now, versus 4 last year at substantial labor savings of 30%. Further reductions of the false alarm rates by approximately 20% should be deployable by the end of this calendar year. These incremental improvements are very cost effective as they are primarily software changes and can be retrofitted to upgrade existing systems.

As technology improvements are proven in a real operational environment, they should be fielded or back-fit on the basis of return on investment (ROI). There remains a clear need to invest in the R&D efforts necessary to develop new or improved technology, and we cannot afford to let ourselves focus so greatly on today's needs that we fail to provide for tomorrow's. There should be a continuing investment in R&D to generate the innovations that will provide cheaper and more effective security solutions.

Another area where focus is needed is on aviation cargo security. I believe it is important that a roadmap be developed by DHS that leads to 100% air cargo screening in a way that does not unduly hamper air commerce. As part of this roadmap, it would be useful to ensure that the collective and sometimes disparate needs of affected DHS agencies are coordinated and effectively integrated into a unified set of equipment certification requirements and regulatory standards. Demonstrations to date show that existing EDS is very effective for screening break bulk cargo. A variety of approaches for pallet and truck screening are also available. I believe it is time that we develop a more targeted approach towards conducting actual cargo screening on an accelerated basis. Hopefully, the development of a roadmap would facilitate this effort. The development of in-container security devices will begin to yield prototypes in FY 2006. Combined with trusted shipper programs, a reasonable layered cargo security road map is now feasible.

Advancements in checkpoint screening is the area most in need of a system solution. We believe that efforts should be undertaken to integrate automated detection technology into the carry-on baggage screening equipment. Automatic detection of threats for carry-on screening systems will be available from L-3 by the end of the fiscal year in standard X-ray machines that fit the current checkpoint footprint. However, initially they will have high false alarm rates & should be used to "suggest" to operators where to look. With the spiral additions of other technology

over time, this will be an excellent way to improve the security of checkpoints while learning the value of each new development. L-3 continues to evaluate numerous checkpoint technologies. Some are showing great promise. Continued support for evolving technologies is key to rapid development & subsequent fielding.

In closing, Mr. Chairman, thank you for permitting me to share my views on ways to leverage technology for aviation security. I would like to briefly summarize some of the key steps I believe are needed. First, there should be a stronger focus on accelerating in-line EDS. Finding the resources to get this job done now will improve security and will pay for itself rapidly. Second, the tools needed for air cargo screening largely exist, and a cohesive plan to initiate such cargo screening should be developed. Third, sufficient resources must be devoted towards R&D to continue to develop cheaper and better technology not only for checked baggage and cargo, but for checkpoint security as well. Adoption and fielding of improved technology should be based on ROI. And, last, although not an aviation issue per se, existing automated detection of threats can be applied to address existing security gaps in rail and other transportation modes. It is largely a matter of developing a plan for addressing the greatest risks – hubs, and finding the financial resources to do so.

That completes my prepared statement, Mr. Chairman. I would be pleased to respond to any questions that you may have.